

Remarks

Applicant respectfully requests reconsideration of this application as amended. Claims 1-13 and 16-24 have been amended. Claims 14-15 have been cancelled. No claims have been added. Therefore, claims 1-13 and 15-24 are presented for examination.

35 U.S.C. §112 Rejection

Claims 5-6, 8, 10, 15, 17, 19, 20, 21, 23, and 24 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5, 6, 8, 10, 17, 19, 20, 21, 23, and 24 have been amended to address the claim dependency problems leading to the 35 U.S.C. §112 rejection. Applicant submits that the claims are now in better form for allowance. Therefore, applicant respectfully requests the 35 U.S.C. §112 rejection be withdrawn.

35 U.S.C. §102(b) Rejection

Claims 1-24 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kenner et al. (U.S. Patent No. 5,903,749). Applicant submits that the present claims are patentable of Kenner.

Kenner discloses a method and apparatus for implementing check instructions that allow for the reuse of memory conflict information if no memory conflict occurs. The method involves preloading one of a set of registers with data retrieved from a memory starting at a first address. It further involves storing memory conflict information representing the first address. This memory conflict information is later used for determining

if a memory conflict has occurred. Then, data is stored at a second address in memory. If a memory conflict has occurred at between the first address and the second address, then one of the registers is reloaded with the data located at the first address. If a memory conflict did not occur, then the memory conflict information is left for use during subsequent memory conflict checks. (Kenner at Abstract.)

Claim 1, as amended, recites:

A method comprising:

- executing a speculative read-reordered load instruction prior to a potentially conflicting load in an instruction sequence;

- storing memory conflict information representing the speculative read-reordered load;

- executing a read-reordered load check instruction associated with the speculative read-reordered load instruction, the read-reordered load check instruction to determine if an address of the potentially conflicting load matches an address of the stored memory conflict information; and

- invalidating the stored memory conflict information with a matching address to the address of the potentially conflicting load if the stored memory conflict information has a value different than a value of the potentially conflicting load.

Applicant submits that Kenner does not disclose or suggest invalidating stored memory conflict information with a matching address to an address of a potentially conflicting load if the stored memory conflict information has a value different than a value of the potentially conflicting load, as recited by claim 1. Applicant can find no disclosure or suggestion of such a feature anywhere in Kenner. Kenner does disclose storing information relating to an instruction in a preload array. (Kenner at col. 3, ll. 28-35.) However, this information *does not include a value for the stored memory conflict information*. (Id.) Applicant can find no disclosure or suggestion in Kenner of comparing the actual values of the data manipulated by the conflicting load instructions when the conflicting load instructions have matching addresses. Therefore, claim 1 is patentable over Kenner.

Claims 2-6 depend from claim 1 and include additional limitations. Therefore, claims 2-6 are also patentable over Kenner.

Independent claims 7, 16, 18, and 22 also recite, in part, invalidating stored memory conflict information with a matching address to an address of a potentially conflicting load if the stored memory conflict information has a value different than a value of the potentially conflicting load. As discussed above, Kenner does not disclose or suggest such a feature. Therefore, claims 7, 16, 18, and 22, as well as their respective dependent claims, are patentable over Kenner for the reasons discussed above with respect to claim 1.

Applicant respectfully submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.


Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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